

PART 3 – NATALITY AND INFANT/MATERNAL MORTALITY STATISTICS

Chart 3.1

Birth Rates

The American Indian and Alaska Native birth rate for 1989-1991 of 28.1 births per 1,000 population was 68 percent greater than the U.S. All Races birth rate for 1990 of 16.7, and 81 percent greater than the rate for the U.S. White population (15.5).

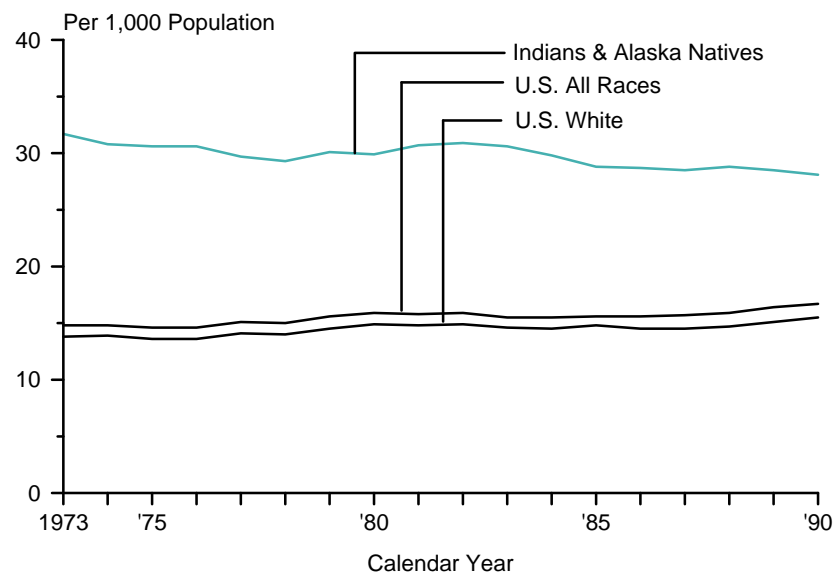


Table 3.1

Number and Rate of Live Births

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1991

Rate per 1,000 Population

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White
	Number	Rate	Number	Rate	Rate
(1991)	34,083				
1989. 1991 (1990)	33,554	28.1	4,158,212	16.7	15.5
1988. 1990 (1989)	34,143	28.5	4,040,958	16.4	15.1
1987. 1989 (1988)	32,544	28.7	3,909,510	16.0	14.8
1986. 1988 (1987)	31,133	28.3	3,809,394	15.7	14.6
1985. 1987 (1986)	29,996	28.4	3,756,547	15.6	14.6
1984. 1986 (1985)	30,194	28.4	3,760,561	15.8	14.8
1983. 1985 (1984)	28,416	29.3	3,669,141	15.6	14.6
1982. 1984 (1983)	29,352	29.9	3,638,933	15.6	14.6
1981. 1983 (1982)	28,701	30.2	3,680,537	15.9	14.9
1980. 1982 (1981)	25,595	30.0	3,629,238	15.8	14.8
1979. 1981 (1980)	25,346	29.3	3,612,258	15.9	14.9
1978. 1980 (1979)	23,252	28.4	3,494,398	15.6	14.5
1977. 1979 (1978)	20,250	29.3	3,333,279	15.0	14.0
1976. 1978 (1977)	19,458	29.7	3,326,632	15.1	14.1
1975. 1977 (1976)	18,797	30.6	3,167,788	14.6	13.6
1974. 1976 (1975)	17,852	30.6	3,144,198	14.6	13.6
1973. 1975 (1974)	17,099	30.8	3,159,958	14.8	13.9
1972. 1974 (1973)	16,662	31.7	3,136,965	14.8	13.8
(1972)	16,801		3,258,411		
1954. 1956 (1955)	17,028	37.5	4,097,000	25.0	23.8

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native birth rates are for the 3-year periods specified. Numbers of births and U.S. rates are for the single year specified.

Chart 3.2

***Births of Low Weight
(Under 2,500 Grams) as
a Percent of Total Live
Births by Age of Mother***

There were 5.8 percent of reported American Indian and Alaska Native live births in 1989–1991 of low birth weight, compared with 7.0 percent for the U.S. All Races population and 5.7 for the U.S. White population in 1990.

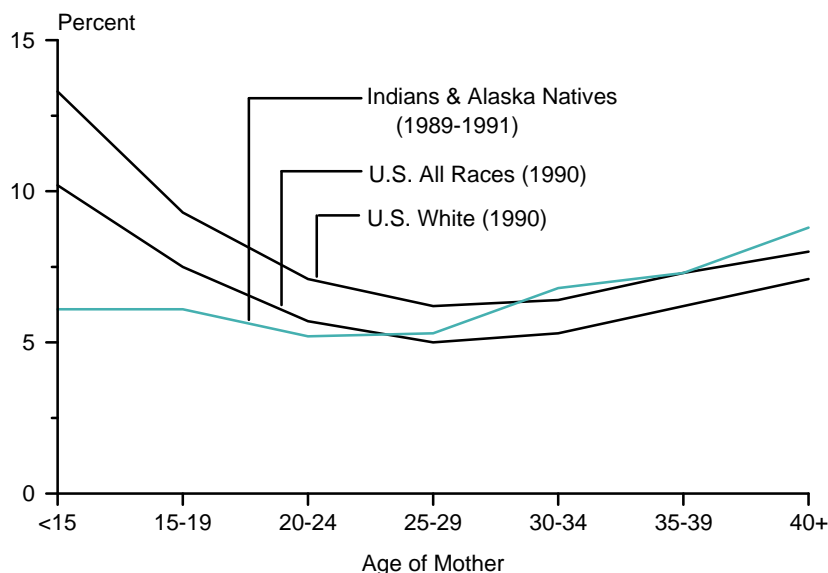


Table 3.2

Births of Low Birth Weight (Under 2,500 Grams) by Age of Mother

American Indians and Alaska Natives, IHS Service Area, 1989–1991, and U.S. All Races and White Populations, 1990

Age of Mother	Indian and Alaska Native			U.S. All Races			U.S. White		
	Total Live Births	Number Low Weight	Percent Low Weight	Total Live Births	Number Low Weight	Percent Low Weight	Total Live Births	Number Low Weight	Percent Low Weight
All Ages	¹ 101,578	5,897	5.8	¹ 4,152,908	289,418	7.0	¹ 3,221,608	182,785	5.7
Under 20 years	19,856	1,205	6.1	532,685	49,869	9.4	348,309	26,337	7.6
Under 15 years	360	22	6.1	11,628	1,545	13.3	4,840	495	10.2
15. 19 years	19,496	1,183	6.1	521,057	48,324	9.3	343,469	25,842	7.5
20. 24 years	33,633	1,762	5.2	1,092,317	77,300	7.1	816,857	46,937	5.7
25. 29 years	26,293	1,402	5.3	1,275,627	78,486	6.2	1,033,486	52,135	5.0
30. 34 years	14,885	1,008	6.8	885,018	56,444	6.4	726,610	38,536	5.3
35. 39 years	5,779	420	7.3	317,110	23,283	7.3	256,746	16,026	6.2
40 years and over	1,132	100	8.8	50,151	4,036	8.0	39,600	2,814	7.1

¹ Excludes 202 American Indian and Alaska Native live births, 5,304 U.S. All Races live births, and 3,735 U.S. White births with birth weight not stated.

Chart 3.3

Birth Order by Age of Mother, Percent Within Birth Order, American Indians and Alaska Natives

For the Indian population, 45 percent of mothers were under age 20 when they had their first child while 20 percent were at least age 25.

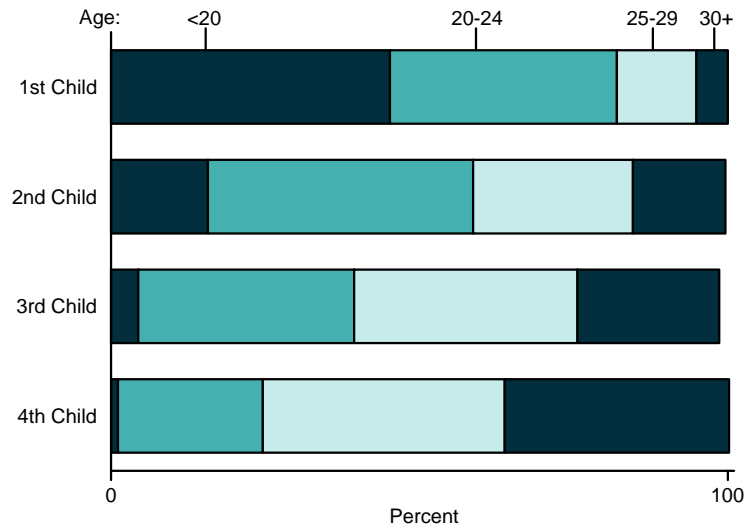


Chart 3.4

Birth Order by Age of Mother, Percent Within Birth Order, U.S. All Races

For the U.S. All Races population, 24 percent of mothers were under age 20 when they had their first child while 46 percent were at least age 25.

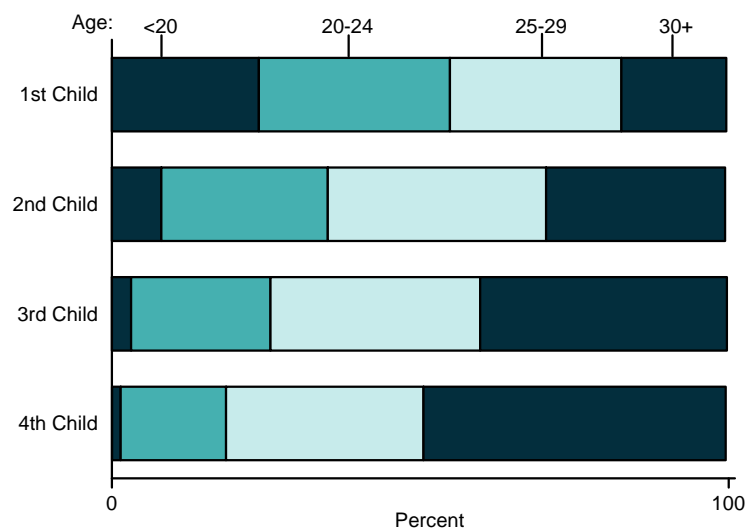


Chart 3.5

Birth Order by Age of Mother, Percent Within Birth Order, U.S. White

For the U.S. White population, 21 percent of mothers were under age 20 when they had their first child while 49 percent were at least age 25.

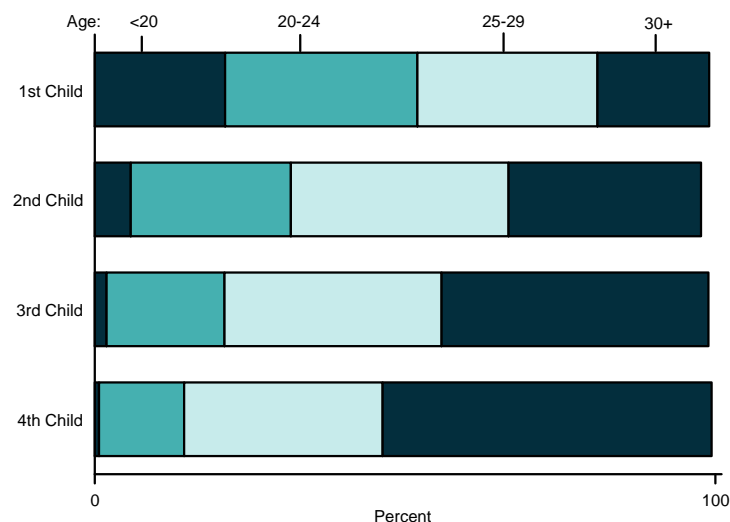


Table 3.3

Number and Percent Distribution of Live Births**By Age of Mother Within Birth Order**

Age Group	Total Live Births	Live Birth Order					
		1st Child	2nd Child	3rd Child	4th Child	5th Child	6th+ Child
American Indians and Alaska Natives, IHS Service Area, 1989, 1991							
All Ages	101,780	31,748	26,710	19,712	11,683	5,992	5,637
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	19.6	45.2	16.2	5.1	1.2	0.3	0.1
20-24 years	33.0	35.1	43.3	35.0	24.1	14.7	5.6
25-29 years	25.9	13.2	26.3	35.6	38.6	35.1	25.6
30-34 years	14.7	4.9	10.8	18.0	24.9	31.5	36.5
35-39 years	5.7	1.4	3.0	5.4	9.7	15.2	25.1
40 years and over	1.1	0.2	0.4	0.9	1.5	3.2	7.1
U.S. All Races, 1990							
All Ages	¹ 4,131,655	1,689,118	1,330,852	678,709	261,277	97,196	74,503
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	12.8	23.8	7.8	3.1	1.4	0.5	0.1
20-24 years	26.3	30.5	27.1	21.9	17.6	12.9	5.8
25-29 years	30.7	27.6	33.5	33.7	32.2	29.7	21.3
30-34 years	21.3	13.7	23.4	29.0	31.6	33.5	34.3
35-39 years	7.6	3.9	7.3	10.8	14.7	19.2	28.1
40 years and over	1.2	0.5	0.9	1.5	2.6	4.3	10.3
U.S. White, 1990							
All Ages	² 3,206,945	1,332,945	1,055,427	519,494	187,763	64,903	46,413
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	10.8	20.6	5.8	1.9	0.7	0.3	0.1
20-24 years	25.4	30.7	25.8	19.1	13.7	8.7	3.4
25-29 years	32.1	29.4	35.1	34.6	32.2	28.3	17.7
30-34 years	22.5	14.6	24.8	31.2	34.4	36.2	35.2
35-39 years	8.0	4.2	7.6	11.5	16.2	21.6	31.6
40 years and over	1.2	0.6	0.9	1.6	2.9	4.9	12.0

¹ Excludes 26,557 U.S. All Races births (0.6 percent) with birth order not reported.² Excludes 18,398 U.S. White births (0.6 percent) with birth order not reported.

Chart 3.6

Maternal Death Rates

The maternal death rate for American Indians and Alaska Natives dropped from 27.7 maternal deaths per 100,000 live births in 1972–1974 to 9.8 in 1989–1991, a decrease of 65 percent. During 1989–1991, there were 10 Indian maternal deaths.

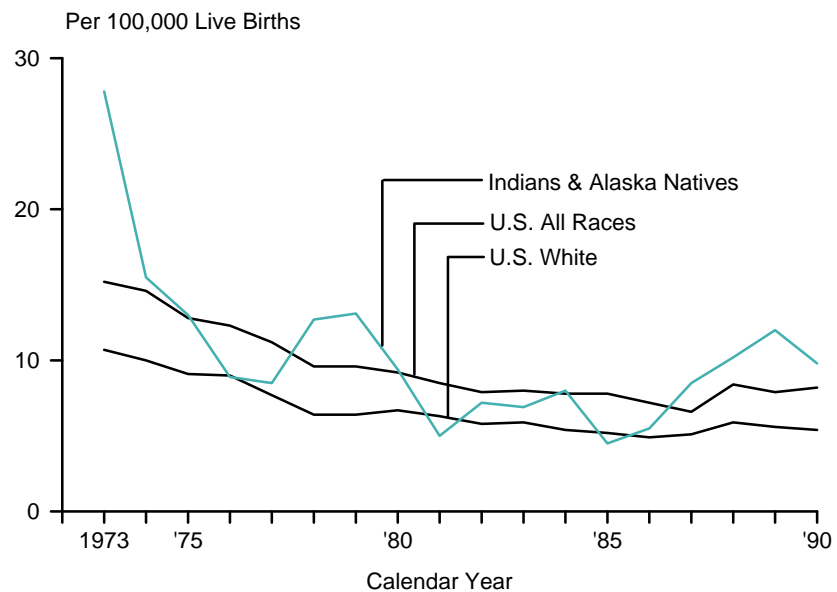


Table 3.6

Maternal Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1958–1991

Rate per 100,000 Live Births

Calendar Year(s)	Indian and Alaska Native		U.S. All Races		U.S. White	Ratio of Indian to:	
	Number	Rate	Number	Rate	Rate	U.S. All Races	U.S. White
1989. 1991 (1991)	3						
1988. 1990 (1990)	4	9.8	343	8.2	5.4	1.2	1.8
1987. 1989 (1989)	3	12.0	320	7.9	5.6	1.5	2.1
1986. 1988 (1988)	5	10.2	330	8.4	5.9	1.2	1.7
1985. 1987 (1987)	2	8.5	251	6.6	5.1	1.3	1.7
1984. 1986 (1986)	1	5.5	272	7.2	4.9	0.8	1.1
1983. 1985 (1985)	2	4.5	295	7.8	5.2	0.6	0.9
1982. 1984 (1984)	1	8.0	285	7.8	5.4	1.0	1.5
1981. 1983 (1983)	4	6.9	290	8.0	5.9	0.9	1.2
1980. 1982 (1982)	1	7.2	292	7.9	5.8	0.9	1.2
1979. 1981 (1981)	1	5.0	309	8.5	6.3	0.6	0.8
1978. 1980 (1980)	2	9.4	334	9.2	6.7	1.0	1.4
1977. 1979 (1979)	4	13.1	336	9.6	6.4	1.4	2.0
1976. 1978 (1978)	3	12.7	321	9.6	6.4	1.3	2.0
1975. 1977 (1977)	1	8.5	373	11.2	7.7	0.8	1.1
1974. 1976 (1976)	1	8.9	390	12.3	9.0	0.7	1.0
1973. 1975 (1975)	3	13.0	340	12.8	9.1	1.0	1.4
1972. 1974 (1974)	3	15.5	462	14.6	10.0	1.1	1.6
1971. 1973 (1973)	2	27.7	477	15.2	10.7	1.8	2.6
1970. 1972 (1972)	9						
1957. 1959 (1958)	16	82.6	1,581	37.6	26.3	2.2	3.1

NOTE: Data are presented above for the year in which maternal mortality data were first collected (1958) and as close to the year in which IHS was established (1955) as is possible. For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native maternal mortality rates are for the 3-year periods specified. Numbers of deaths and U.S. rates are for the single years specified. Maternal deaths include deaths with ICD-9 codes 630. 676.

Chart 3.7

Infant Mortality Rates

The infant mortality rate for American Indians and Alaska Natives dropped from 22.2 infant deaths per 1,000 live births in 1972-1974 to 10.2 in 1989-1991, a decrease of 54 percent. The U.S. All Races and White populations' rates for 1990 were 9.2 and 7.7, respectively.

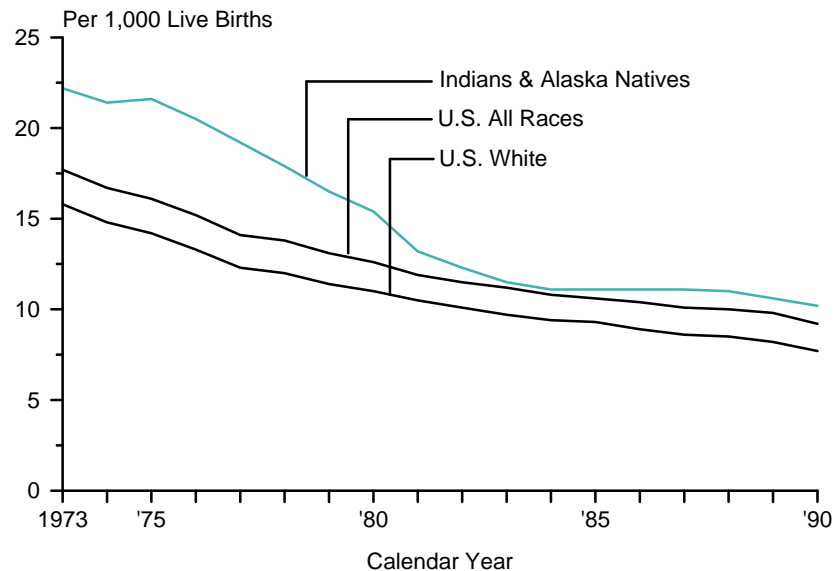


Table 3.7

Infant Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1990

Rate per 1,000 Live Births

Calendar Year(s)	Indian and Alaska Native	U.S. All Races	U.S. White	Ratio of Indian and Alaska Native to:	
				U.S. All Races	U.S. White
1989, 1991 (1990)	10.2	9.2	7.7	1.1	1.3
1988, 1990 (1989)	10.6	9.8	8.2	1.1	1.3
1987, 1989 (1988)	11.0	10.0	8.5	1.1	1.3
1986, 1988 (1987)	11.1	10.1	8.6	1.1	1.3
1985, 1987 (1986)	11.1	10.4	8.9	1.1	1.2
1984, 1986 (1985)	11.1	10.6	9.3	1.0	1.2
1983, 1985 (1984)	11.1	10.8	9.4	1.0	1.2
1982, 1984 (1983)	11.5	11.2	9.7	1.0	1.2
1981, 1983 (1982)	12.3	11.5	10.1	1.1	1.2
1980, 1982 (1981)	13.2	11.9	10.5	1.1	1.3
1979, 1981 (1980)	15.4	12.6	11.0	1.2	1.4
1978, 1980 (1979)	16.5	13.1	11.4	1.3	1.4
1977, 1979 (1978)	17.9	13.8	12.0	1.3	1.5
1976, 1978 (1977)	19.2	14.1	12.3	1.4	1.6
1975, 1977 (1976)	20.5	15.2	13.3	1.3	1.5
1974, 1976 (1975)	21.6	16.1	14.2	1.3	1.5
1973, 1975 (1974)	21.4	16.7	14.8	1.3	1.4
1972, 1974 (1973)	22.2	17.7	15.8	1.3	1.4
1954, 1956 (1955)	62.7	26.4	23.6	2.4	2.7

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. U.S. rates are for the single years specified.

Chart 3.8

***Infant Mortality Rates
by Age***

The neonatal mortality rate for American Indians and Alaska Natives in 1989-1991 was 19 percent lower than the U.S. All Races rate and 4 percent lower than the U.S. White rate for 1990. On the contrary, the postneonatal rate for Indians was 1.6 and 2.0 times the U.S. All Races and White populations' rates, respectively.

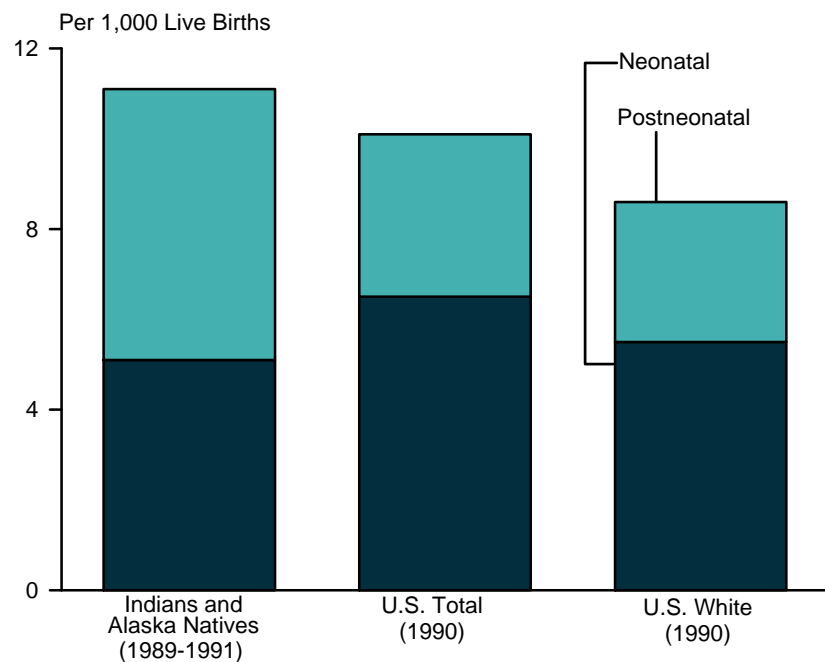


Table 3.8

Infant Mortality Rates by Age

American Indians and Alaska Natives, IHS Service Area, 1972–1974 to 1989–1991, and U.S. All Races and White Populations, 1973–1990

Rate per 1,000 Live Births

American Indian and Alaska Native						
Calendar Years	Infant Mortality Rate	Neonatal Under 28 Days	Postneonatal 28 Days. 11 Months			
1989. 1991	10.2	4.7	5.5			
1988. 1990	10.6	4.8	5.8			
1987. 1989	11.0	5.1	5.9			
1986. 1988	11.1	5.2	5.9			
1985. 1987	11.1	5.3	5.9			
1984. 1986	11.1	5.0	6.0			
1983. 1985	11.1	5.1	6.0			
1982. 1984	11.5	5.1	6.4			
1981. 1983	12.3	5.3	7.0			
1980. 1982	13.2	5.9	7.3			
1979. 1981	15.4	7.2	8.1			
1978. 1980	16.5	8.2	8.4			
1977. 1979	17.9	8.9	9.0			
1976. 1978	19.2	9.3	9.9			
1975. 1977	20.5	10.0	10.5			
1974. 1976	21.6	10.4	11.2			
1973. 1975	21.4	10.4	11.1			
1972. 1974	22.2	10.2	12.0			
U.S. All Races				U.S. White		
Calendar Year	Infant Mortality Rate	Neonatal Under 28 Days	Postneonatal 28 Days. 11 Months	Infant Mortality Rate	Neonatal Under 28 Days	Postneonatal 28 Days. 11 Months
1990	9.2	5.8	3.4	7.7	4.9	2.8
1989	9.8	6.2	3.6	8.2	5.2	3.0
1988	10.0	6.3	3.7	8.5	5.4	3.1
1987	10.1	6.5	3.6	8.6	5.5	3.1
1986	10.4	6.7	3.6	8.9	5.8	3.1
1985	10.6	7.0	3.7	9.3	6.1	3.2
1984	10.8	7.0	3.8	9.4	6.2	3.3
1983	11.2	7.3	3.9	9.7	6.4	3.3
1982	11.5	7.7	3.8	10.1	6.8	3.3
1981	11.9	8.0	3.9	10.5	7.1	3.4
1980	12.6	8.5	4.1	11.0	7.5	3.5
1979	13.1	8.9	4.2	11.4	7.9	3.5
1978	13.8	9.5	4.3	12.0	8.4	3.6
1977	14.1	9.9	4.2	12.3	8.7	3.6
1976	15.2	10.9	4.3	13.3	9.7	3.6
1975	16.1	11.6	4.5	14.2	10.4	3.8
1974	16.7	12.3	4.4	14.8	11.1	3.7
1973	17.7	13.0	4.7	15.8	11.8	4.0

NOTE: Starting in 1972 data on infant mortality by age are first available, and are shown above, for the specific counties in the IHS service area.

Chart 3.9

Leading Causes of Infant Deaths (Birth to Under 1 Year)

The two leading causes of infant deaths for American Indians and Alaska Natives (1989-1991) were sudden infant death syndrome (SIDS) and congenital anomalies. For the U.S. All Races and White populations (1990), the order was reversed.

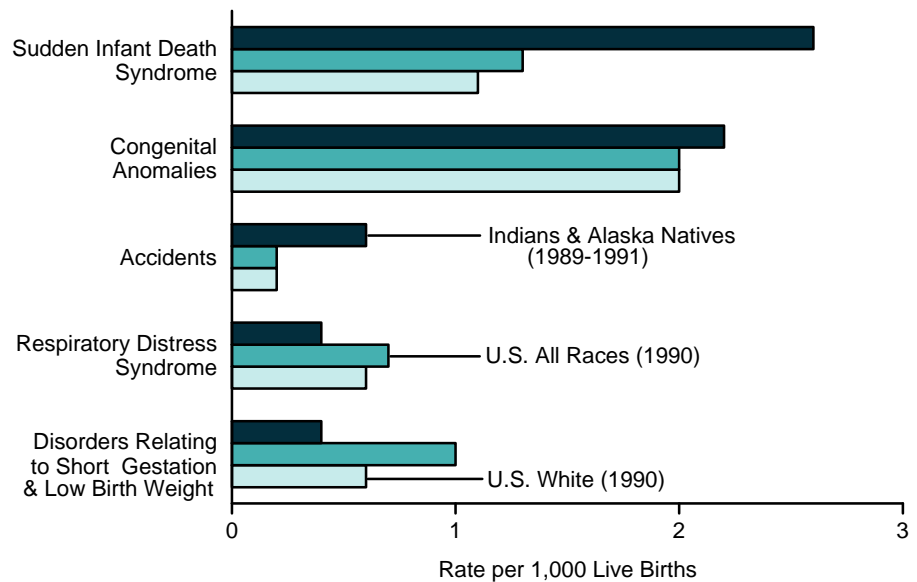


Chart 3.10

Leading Causes of Neonatal Deaths (Under 28 Days)

The two leading causes of neonatal deaths for American Indians and Alaska Natives (1989-1991) and the U.S. All Races and White populations (1990) were congenital anomalies and disorders related to short gestation and low birth weight.

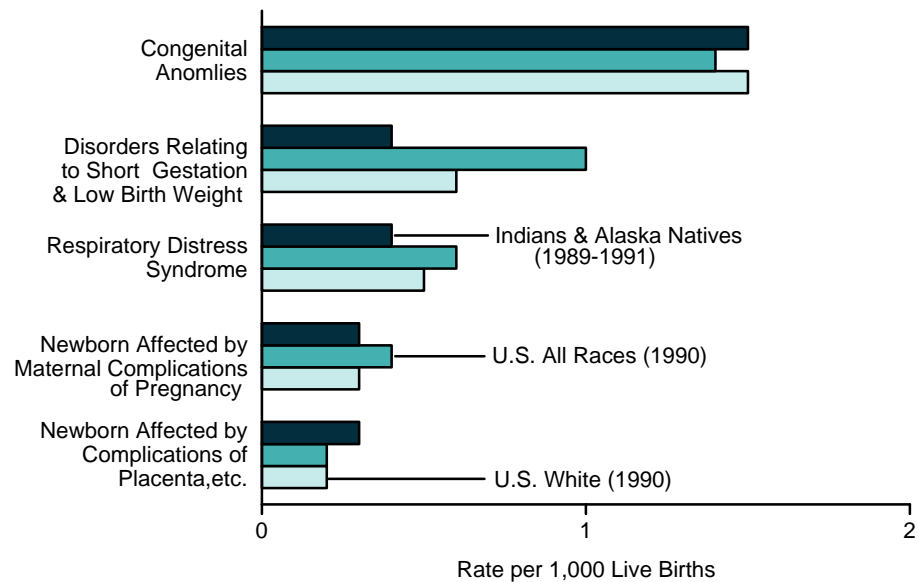


Chart 3.11

***Leading Causes of
Postneonatal Deaths (28
Days to Under 1 Year)***

The two leading causes of postneonatal deaths for American Indians and Alaska Natives (1989–1991) and the U.S. All Races and White populations (1990) were sudden infant death syndrome (SIDS) and congenital anomalies.

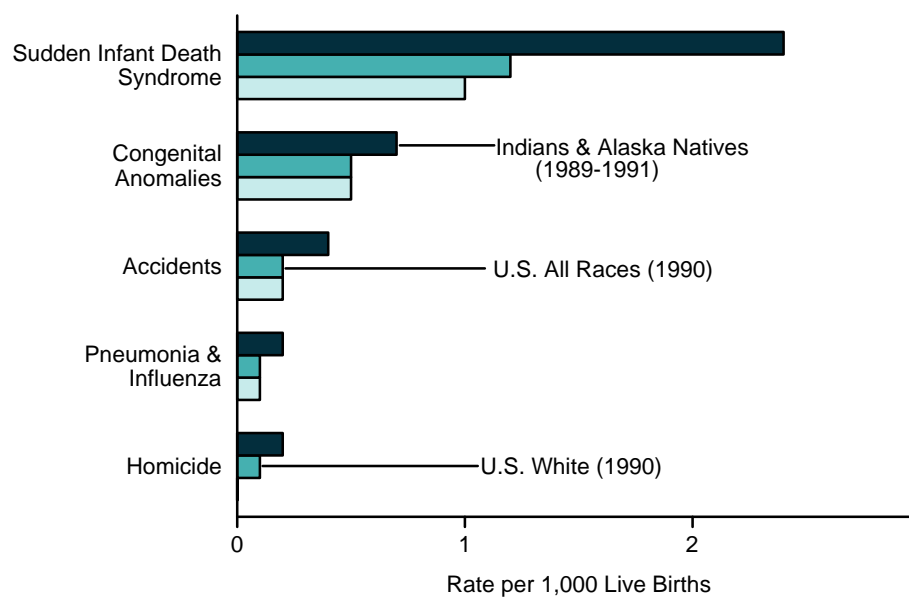


Table 3.9

Leading Causes of Infant Deaths by Age

American Indians and Alaska Natives, IHS Service Area, 1989–1991, and U.S. All Races and White Populations, 1990

Rate per 1,000 Live Births

Cause of Death and ICD-9 Code(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S. White
Total Infant Deaths						
All Causes	1,038	10.3	9.2	7.7	1.1	1.3
Sudden infant death syndrome, 798.0	259	2.6	1.3	1.1	2.0	2.4
Congenital anomalies, 740. 759	226	2.2	2.0	2.0	1.1	1.1
Accidents, E800. E949	63	0.6	0.2	0.2	3.0	3.0
Respiratory distress syndrome, 769	44	0.4	0.7	0.6	0.6	0.7
Disorders relating to short gestation and low birth weight, 765	42	0.4	1.0	0.6	0.4	0.7
Pneumonia and influenza, 480. 487	30	0.3	0.2	0.1	1.5	3.0
Newborn affected by maternal complications of pregnancy, 761	28	0.3	0.4	0.3	0.8	1.0
Newborn affected by complications of placenta, cord, and membranes, 762	26	0.3	0.2	0.2	1.5	1.5
Infections specific to the perinatal period, 771	21	0.2	0.2	0.2	1.0	1.0
Meningitis, 320-322	16	0.2	0.0	0.0	*	*
All other causes	283					
Neonatal Deaths						
All Causes	475	4.7	5.8	4.9	0.8	1.0
Congenital anomalies, 740. 759	156	1.5	1.4	1.5	1.1	1.0
Disorders relating to short gestation and low birth weight, 765	42	0.4	1.0	0.6	0.4	0.7
Respiratory distress syndrome, 769	40	0.4	0.6	0.5	0.7	0.8
Newborn affected by maternal complications of pregnancy, 761	26	0.3	0.4	0.3	0.8	1.0
Newborn affected by complications of placenta, cord, and membranes, 762	26	0.3	0.2	0.2	1.5	1.5
Infections specific to the perinatal period, 771	20	0.2	0.2	0.2	1.0	1.0
Sudden infant death syndrome, 798.0	20	0.2	0.1	0.1	2.0	2.0
Intrauterine hypoxia and birth asphyxia, 768	16	0.2	0.2	0.1	1.0	2.0
Pneumonia and influenza, 480-487	5	0.0	0.0	0.0	*	*
Birth trauma, 767	5	0.0	0.0	0.0	*	*
All other causes	119					
Postneonatal Deaths						
All Causes	563	5.6	3.4	2.8	1.6	2.0
Sudden infant death syndrome, 798.0	239	2.4	1.2	1.0	2.0	2.4
Congenital anomalies, 740. 759	70	0.7	0.5	0.5	1.4	1.4
Accidents, E800. E949	38	0.4	0.2	0.2	2.0	2.0
Pneumonia and influenza, 480. 487	25	0.2	0.1	0.1	2.0	2.0
Homicide, E960. E969	16	0.2	0.1	0.0	2.0	*
Meningitis, 320. 322	14	0.1	0.0	0.0	*	*
Viral diseases, 045. 079	11	0.1	0.0	0.0	*	*
Septicemia, 038	9	0.1	0.1	0.0	1.0	*
Bronchitis and bronchiolitis, 466, 490. 491	8	0.1	0.0	0.0	*	*
Respiratory distress syndrome, 769	4	0.0	0.0	0.0	*	*
All other causes	129					

NOTE: 0.0 rounds to zero. * Not applicable.

SOURCE: National Center for Health Statistics (NCHS), U.S. infant mortality rates (all ages). Monthly Vital Statistics Report, Advance Report of Final Mortality Statistics, 1990, Vol. 41 No. 7, Supplement, January 7, 1993, Table 23; and Infant mortality rates by age and race, 1990, unpublished, from NCHS.

